

SCROLL AND ROTARY COMPRESSORS



- ✓ High Performance
- ✓ Energy Saving
- ✓ Environmental Concern

***Ambient Air Solution,  
Advanced Technology***

# → Injection inverter compressor

## Benefits and Advantages

- Low ambient operating (ET: -37 °C and CT: 52 °C)
- Inverter compressor 20 – 120 rps
- Heating capacity up 20 – 40%
- HCOP can be improved 10 – 20%
- Split type and Monoblock type
- Compact Dimension:  
Shell diameter: 168,5 mm  
W x L x H: 190.5/190.5/ 440.1 mm  
Net weight: 32.6 – 38.6 kg

## Injection inverter – Scroll Compressor Line Up

Heating Capacity		0	0.7	1.4	2.1	2.9	3.6	4.3	5	5.7	6.4	7.1	7.9	8.6	9.3	10	10.7	11.4	12.1	12.9	13.6	
KBTuhr		0	6.8	13.6	20.5	27.3	34.1	40.9	47.8	54.6	61.4	68.2	75.1	81.9	88.7	95.5	102.4	109.2	116	122.8	129.7	
KW		0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36	38	
DC-Inverter Injection	ANB33FU	2.9 – 18.6 kw, 1.0 – 6.6 HP																				
	ANB42FU	3.6 – 23.7 kw, 1.3 – 8.5 HP																				
	ANB66FU	5.9 – 36.0 kw, 2.1 – 12.9 HP																				

Note: Heating Standard Condition CT/ET = 50/-7 °C, SC/SH = 4/5 K

Speed Range 20 – 120 rps



ANBxxFU-MT Injection inverter compressor

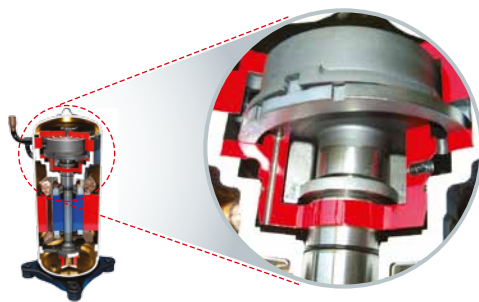
# → Scroll Compressor Benefits and Advantages



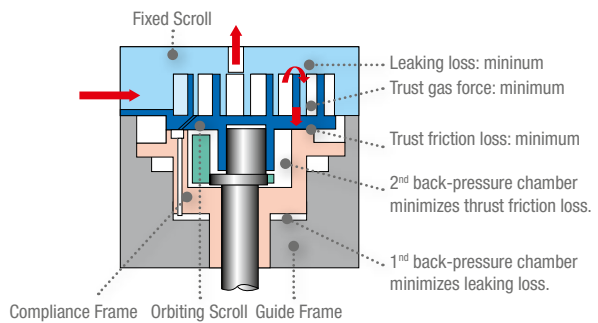
## Frame Compliance Mechanism (FCM)

FCM can minimize gas leakage in scroll compression chamber, keep refrigerating capacity and reduce power losses by self-adjustment system of orbiting scroll position to pressure load and accuracy of fixed scroll profile. It is a big feature that FCM has not only a moveable

orbiting scroll but also a moveable Frame unlike other manufacturer's one which is known so far. Incidentally, FCM have already applied as patent 31 matters including 221 items in Japan and foreign countries.



FCM outline diagram



## Advantage of the Frame Compliance Mechanism

**High efficiency:** resulting from the higher performance of the mechanism in term of adjusting the proper thrust force and eliminating energy losses.

**High reliability & durability:** resulting from less friction force and automatic lubrication. The automatic lubrication creates from a different pressure inside the compressor that allows the lubrication oil to flow from high pressure chamber to the lower pressure one, without the necessity of oil stirrer (oil distribution equipment).

**Low noise & vibration:** resulting from the frame com-

pliance technology in adapting the pressure against the scroll internal chamber to the optimize level, decreasing clashes of internal parts, therefore, delivering a more quieter scroll compressor.

**Technology of the future inverter:** with the proven FCM that enabling the automatic lubrication, the advanced scroll is capable at running at various speed ranging from the very low to high revolution without any problem. It is a perfect solution for inverter and Multi Refrigerant System air conditioners.



# → Mitsubishi Electric Compressor Line-Up

SCI		Compressor Series	Refrigerant	Compressor Model	Type	Capacity	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	Power Supply					
Scroll	A Series	R407C	AE	Fix Speed	KW	5,6 – 10,7 kw <sup>1</sup>																													V; Y
			AEB	Inverter			2,2 – 23,6 kw <sup>1</sup>																												
			AEE	Inverter			1,4 – 23,0 kw <sup>3</sup>																												
	R410A	AN	Fix Speed	7,3 – 17,4 kw <sup>1</sup>																											V; Y				
		ANB	Inverter	3,1 – 42,0 kw <sup>1</sup>																															
		ANE		2,9 – 38,0 kw <sup>3</sup>																															
	ANB-FU (VI)	2,9 – 36,0 kw <sup>3</sup>																																	
	B Series	R407C	BE	Fix-Speed	12,1 – 19,1 kw <sup>1</sup>																											Y			
R410A		BN	Fix-Speed	12,4 – 17,6 kw <sup>1</sup>																											Y				
Rotary	N Series	R407C	NE	Fix Speed	KW	6,2 – 10,2 kw <sup>2</sup>																													V; Y
		R410A	NN	5,4 – 11,4 kw <sup>2</sup>																													V; Y		
	R Series	R407C	RE	Fix Speed	2,2 – 5,4 kw <sup>2</sup>																											V			
		R410A	RN	2,2 – 5,4 kw <sup>2</sup>																											V				
	T Series	R410A	TNB	Inverter	2,2 – 19,0 kw <sup>1</sup>																														
	S Series	R410A	SNB	Inverter	0,62 – 12,9 kw <sup>1</sup>																														

MGC		Compressor Series	Refrigerant	Compressor Model	Type	Capacity	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	Power Supply					
Rotary	K Series			KB		0,7 – 1,5 kw <sup>2</sup>																													G; Y
	R Series	R134A	RB	Fix Speed	1,8 – 2,7 kw <sup>2</sup>																											G; Y			
	T Series		TB		3,9 kw <sup>1</sup>																											G; Y			

Melshi		Compressor Series	Refrigerant	Compressor Model	Type	Capacity	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37	39	41	43	45	Power Supply					
Rotary	XB Series			XB	Fix Speed	0,28 kw – 0,38 kw <sup>2</sup>																													G
	YB Series	R134A	YB	Fix Speed	0,7 kw <sup>2</sup>																											G			
	CBB Series		CBB	Inverter	0,35 kw – 3,25 kw <sup>2</sup>																														

<sup>1</sup> ARI conditions: ET: 7,2 °C / CT: 54,4 °C / SH: 11,1 °C / SC: 8,3 °C

<sup>2</sup> ASHRAE conditions: ET: 7,2 °C / CT: 54,4 °C / SH: 27,8 °C / SC: 8,3 °C

<sup>3</sup> Heating conditions: ET: -7,0 °C / CT: 50,0 °C / SH: 5 °C / SC: 4 °C

V = 220V – 240V / 50HZ / 1 Phase

G = 220V – 240V, 50HZ / 230V, 60 HZ / 1 Phase

Y = 380V – 415V, 50HZ / 460V, 60HZ, 3 Phase

cooling capacity

heating capacity

# → Mitsubishi Electric Compressor Production Bases



MITSUBISHI ELECTRIC SHIZUOKA WORKS (MELSHI)



MITSUBISHI ELECTRIC (GUANGZHOU) COMPRESSOR CO.,LTD. (MGC)



SIAM COMPRESSOR INDUSTRY CO., LTD. (SCI)

